U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Jewett White Lead Removal (2000-2012 Richmond Terrace) - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: **POLREP #4**
Jewett White Lead Removal (2000-2012 Richmond Terrace)
A218
Staten Island, NY
Latitude: 40.6396512 Longitude: -74.1304207

To: Judith Enck, USEPA Region 2, Regional Administrator
Lisa Plevin, USEPA Region 2, ORA, Chief of Staff
Joe Rotola, USEPA Region 2, ERRD-RAB
Dan Harkay, USEPA, Region 2, ERRD-RAB
George Zachos, USEPA Region 2 ERRD
Beckett Grealish, USEPA Region 2, ERRD-RAB
Tim Grier, USEPA Headquarters 5202G
Wanda Ayala, USEPA Region 2, PAD
Berry Shore, USEPA Region 2, PAD
Elias Rodriguez, USEPA Region 2, PAD
Terry Wesley, USEPA, Region 2, EJ Coordinator
Henry Guzman, USEPA Region 2, ORC
Ian Beilby, NY State DEC
Nick Dymetryzan, Borough of Staten Island
Richard Craig, RST Manager

From: Mark Gallo, On-Scene Coordinator

Date: 2/11/2013

Reporting Period: January 14 - February 8, 2013

1. Introduction

1.1 Background

Site Number:	A218	**Contract Number:**	EP-S2-10-03
D.O. Number:	0056	**Action Memo Date:**	12/21/2011
Response Authority:	CERCLA	**Response Type:**	Non-Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	10/3/2012	**Start Date:**	9/27/2012
Demob Date:		**Completion Date:**	
CERCLIS ID:	NYD980531545	**RCRIS ID:**	NYD980531545
ERNS No.:	NA	**State Notification:**	
FPN#:	NA	**Reimbursable Account #:**	NA

1.1.1 Incident Category

This removal action involving the excavation and off-site disposal of lead contaminated soil is being performed by the U.S. Environmental Protection Agency under the removal authority pursuant to Section 104(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”), 42 U.S.C Section 9604(a) and Section 300.415 of the National Contingency Plan (“NCP”), 40 Coder of Federal Regulations (“CFR”) Part 300.

1.1.2 Site Description

Historically, John Jewett & Sons White Lead Company operated a white lead manufacturing facility which originated at 2015 Richmond Terrace where it owned and operated the Site from 1839 until 1890. White lead was formerly used as an ingredient for lead paint. Lead was added to paint to speed drying, increase durability, and resist corrosion from moisture.

On April 3, 1890, National Lead and Oil Company of New York ("National Lead") acquired the Site property. National Lead continued the manufacture of white lead at the Site, and extended the operations across the street to include the 2000 Richmond Terrace property. National Lead owned and operated at both Site properties until approximately 1943.

The Jewett White Lead Site at 2000-2012 Richmond Terrace, Staten Island, NY is an approximate 1 acre site that is located in a commercial/industrial area. Previous investigations on site have shown the site to contain lead contaminated soils. Contamination exists across the site on the surface and at depth. Depths of contamination range from 1 foot to possibly 8 ft in some locations. The average depth of excavation required to meet the removal action clean up goal of 800 ppm is approximately 3-5 ft.

Businesses are located to the north and east of the site with an abandoned, elevated rail line along the south border of the site. Just beyond the abandoned rail line to the south is a residential area. Two bus stops are located adjacent to the site, one to the northeast on Richmond Terrace and the other on Park Ave to the west. Richmond Terrace to the north/east is a primary road along the north shore of Staten Island. It can contain higher volumes of vehicular and pedestrian traffic.

1.1.2.1 Location

2000-2012 Richmond Terrace
Staten Island, NY 10302

1.1.2.2 Description of Threat

The site contains elevated levels of lead in the soil. Lead is a hazardous substance and is acutely and chronically toxic. The effects of lead are the same whether it enters the body through inhalation or ingestion. Lead can affect many systems and organs within the body. The main target for lead toxicity is the central nervous system. Elevated levels of lead have been identified horizontally and vertically within the site soils. The threat of migration exists if soils on site are disturbed without the implementation of proper engineering controls. Off site migration could impact residences and businesses surrounding the site.

The conditions at the Site meet the criteria for implementation of a CERCLA removal action under Section 300.415(b) of the NCP. The release and potential further release of hazardous substances at and from the Site presents a threat to public health, or welfare, or the environment.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In December 2008 EPA collected soil samples from 16 test pits at the Site that were excavated to a depth of approximately four feet below grade. The analytical results from the sampling event in December 2008 revealed the presence of elevated levels of lead throughout most of that property, both laterally and with depth. The average surface lead concentration was 5,081 milligrams/kilogram (mg/kg). The highest lead concentration detected at the surface was 37,100 mg/kg, near the gate on Park Avenue. The average lead concentration in the soil samples collected at depths of 1-foot, 2-foot, and

3-foot below grade were 28,245 mg/kg, 61,201 mg/kg, and 53,398 mg/kg, respectively. The highest lead concentration detected in the subsurface was 240,000 mg/kg.

In October of 2010 EPA conducted additional investigations to determine the extent of lead contamination at the Site. The field screening results from the sampling event in October indicated that the elevated levels of lead were confined to the upper four feet of soil with the exception of a small well defined area located in the southwest comer of the property adjacent Park Ave. The average lead concentrations in the field screened soil samples collected at depths of 1-foot, 2-foot, 3-foot, 4-foot, and 5-foot below grade were 7,083 mg/kg, 20,340 mg/kg, 21,070 mg/kg, 14,388 mg/kg, and 5,752 mg/kg, respectively. The highest lead concentration detected in the subsurface was 97,921 mg/kg at the 2- to 3-foot depth interval.

2. Current Activities

2.1 Operations Section

January 14 – 18, 2013

During the week of January 14-18, 2013, excavation and off-site disposal continued on site. Approximately 2,400 tons of hazardous waste soil was excavated with approximately 1,870 tons shipped off site for treatment and disposal. Backfilling operations continued with approximately 2,100 tons of backfill brought on site. An access road was also constructed with an additional entrance to the site created along Park Ave. This was in anticipation of losing access to the current site entrance point as the project excavation moves into that area.

Post-excavation sampling was also conducted during this period. A total of 13 post-excavation samples were collected; nine (9) base samples and four (4) sidewall samples. All base samples returned values of less than 400 ppm, well below the site cleanup standard of 800 ppm. Three of three (3) sidewall samples were collected along the perimeter of the site at locations adjacent to Park Ave (samples 37, 38, and 40). Consistent with past sidewall sampling along Park Ave, the results indicated elevated levels of lead at depths approximately two (2) ft below sidewalk surface. Sidewall samples were collected from locations below existing sidewalk areas on Park Ave, immediately adjacent to the site perimeter fencing. One (1) sidewall sample (sample 43) was collected from site perimeter immediately adjacent to Richmond Terrace. This sample showed levels slightly exceeding the 800 ppm site clean-up level but was not as elevated as sidewall samples collected along the perimeter of the Park Ave sidewalk.

January 22 – 25, 2013

During the week of January 25-28, 2013, excavation and off-site disposal continued on site. Approximately 950 tons of waste soil was excavated with approximately 1,050 tons shipped off site for treatment and disposal. Backfilling operations continued with approximately 2,000 tons of backfill brought on site. Areas excavated were along the site perimeters at Richmond Terrace and Park Ave.

A total of 13 samples were collected during this period; six (6) base samples and seven (7) sidewall samples. All base samples were reported below the site cleanup goal of 800 ppm. One sample (sample # 50) was reported at 550 ppm. That area was located in the southwest area of the site and orange barrier fencing was installed at the base of that excavation prior to backfilling. Of the seven (7) sidewall samples, four (4) samples (samples, #54, 56, 58, and 59) were reported exceeding the 800 ppm limit. These samples were all collected at the site perimeter, under the sidewalk areas along Park Ave and Richmond Terrace. The sidewall samples collected were consistent with material that was excavated immediately adjacent on site.

January 28 – February 1, 2013

During the week of January 28 – February 1, 2013, EPA completed the off-site shipping of non-hazardous waste soils. A total of approximately 2320 tons of non hazardous waste soil was shipped off-site during. Shipping of hazardous waste soil continued with approximately 1,767 tons shipped off site during the week of January 28, 2013.

Site excavation activities continued throughout the week with approximately 1,600 tons of material excavated. Excavation activities were focused primarily along the north and western portion of the site, adjacent to Richmond Terrace and Park Ave intersection. During the excavation activities a tunnel running under Richmond Terrace was identified. The access area to the former tunnel was excavated to a depth of approximately 8 feet. The supporting brick structure was left undisturbed to maintain structural integrity of the tunnel which runs below Richmond Terrace. Areas were also excavated in the north/central portions of the site. These areas, formerly utilized as a truck travel road, were excavated from the central portion of the site working back to the site access point at Park Ave.

Backfilling from stockpiled material was conducted along the Richmond Terrace perimeter. Due to lack of additional backfill analytical data, no additional backfill was brought on site during the week of January 28, 2013. All areas backfilled were cleared with post excavation sampling and all areas backfilled were reported as being less than 400 ppm.

One (1) sidewall sample (sample #61) was collected during the week of January 28, 2013. It was collected at the sidewall adjacent to Richmond Terrace. This sample was reported at 3000 ppm.

February 4 – 8, 2013

During the week of February 4-8, 2013, Site operations included excavation of soil and off-site shipping of hazardous waste soil. No backfilling operations were conducted during this week due to pending analysis on backfill. Excavation included the recovery of approximately 1400 tons of soil. Disposal activities include approximately 2075 tons of hazardous waste soil shipped off-site. The total amount shipped as of 2/8/2013 has been approximately 7,980 tons. The estimated amount of hazardous soil remaining is approximately 400 tons. Due to a requirement at the waste receiving facility, additional samples were collected on the 400 tons awaiting disposal. Sampling of the soil was conducted on 2/8/2013 with results anticipated on 2/12/2013.

Three (3) post excavation base samples (sample #s 62, 63, 64) were collected on 2/4/2013. All samples were reported as being below 400 ppm. The site cleanup goal is 800 ppm. These base samples were collected from the central and northwestern areas of the site. The following is a summary table of post excavation sampling and results

Post Excavation and Sidewall Sampling Information						
Sample #	**Grid Cell**	**Sample Type**	**SampleDepth (ft)**	**Date Sampled**	**XRF Result(average of 3)(ppm)**	**Laboratory Result(ppm)**
1	D-3	Base	4	12/11/2012	277	240
2	D-1/D-2	Base	2	12/11/2012	251	270
3	D-1	Sidewall	1	12/11/2012	720	630
4	D-2/C-2	Base	8	12/11/2012	412	1600 * (18)
5	E-3	Sidewall (S)	4	12/11/2012	322	480
6	D-2	Sidewall (S)	2	12/11/2012	765	790
7	C-2	Sidewall (NE)	3.5	12/11/2012	712	590
8	E-3	Base	2	12/12/2012	80	170
9	E-4	Base	2	12/12/2012	38	81
10	F-4	Base	1	12/12/2012	581	580
11	E-3	Sidewall	1	12/12/2012	65	78
12	F-4	Sidewall	2	12/12/2012	24	16
13	F-4	Base	3	12/13/2012	184	190

14	D-4	Base	3	12/13/2012	85	18
Field XRF	C-2	Sidewall (NW)	3	12/14/2012	253	NA
Field XRF	C-2	Sidewall (NW)	5	12/14/2012	49	NA
15	C-3	Base	4	12/18/2012	90	80
16	C-4	Base	3	12/18/2012	18	9.1
17	B4	Sidewall (NE)	1	12/18/2012	88	71
18	C-3	Sidewall (NE)	1	12/18/2012	1237	1200
19	F-5	Base	5	1/8/2013	7	9.2
20	E-5	Base	5.5	1/8/2013	ND	5.9
21	G-6	Base	4	1/8/2013	10	8.2
22	G-5	Sidewall (S)	2	1/8/2013	44	36
23	E-5	Sidewall (SE)	3	1/8/2013	77	290
24	G-6	Sidewall (S)	1.5	1/8/2013	932	890
25	G-6	Base (2)	5.5	1/8/2013	386	420
26	F-6	Base	5.5	1/8/2013	103	95
27	G-8**	Base	7	1/10/2013	272	300
28	G-8	Sidewall (SW)	3.5	1/10/2013	147	140
29	G-8**	Base	1.5	1/10/2013	11	9.8
30	G-7	Base	5	1/10/2013	4	8.0
31	G-7	Sidewall (SW)	3	1/10/2013	481	460
32	E-5	Sidewall (SE)	4	1/11/2013	5	4.5
33	G-8	Sidewall (NW)	2	1/11/2013	36,300 ***	32,000
34	G-8	Sidewall (NW)	1	1/11/2013	2,426 *******	1,900
35	F-7	Base	7	1/15/2013	4.7	7.2
36	F-8	Base	7	1/15/2013	25	18
37	F-8	Sidewall (NW)	2	1/15/2013	151,100	95,000
38	F-8	Sidewall (NW)	1	1/15/2013	89	64
39	E-8	Base	6.5	1/16/2013	ND	7.1
40	E-8	Sidewall (NW)	2	1/16/2013	15,500	13,000
41	C-5	Base	3	1/18/2013	24	21
42	B-5	Base	3	1/18/2013	232	210
43	B-5	Sidewall (NE)	1.5	1/18/2013	1022	820
44	D-5	Base	4	1/18/2013	78	57
45	D-6	Base	4	1/18/2013	11	6.9
46	E-6	Base	4.5	1/18/2013	30	40

47	E-7	Base	6.5	1/18/2013	ND	8
48	B-6	Base	4	1/23/2013	18	8
49	H-8	Base	3.5	1/24/2013	214	250
50	H-7	Base	1	1/24/2013	483	550
51	H-7	Sidewall (S)	0.5	1/24/2013	325	320
52	I-8	Sidewall (S)	1	1/24/2013	232	180
53	H-8	Sidewall (NW)	0.5	1/24/2013	207	210
54	B-6	Sidwall (NE)	0.5	1/24/2013	4,958	5600
55	B-8	Base	3.5	1/24/2013	5	8.1
56	B-8	Sidewall (NE)	1	1/24/2013	2,176	2,400
57	A-8	Base	1.5	1/24/2013	27	23
58	A-8	Sidewall (NE)	1	1/24/2013	1,228	1,100
59	A-8	Sidewall (NW)	1	1/24/2013	5,488	5,500
60	B-7	Base	3.5	1/25/2013	4	10
61	A-7	Sidewall (NE)	0.5	1/30/2013	3052	3000
62	C-6	Base	3.5	2/4/2013	33	26
63	C-7	Base	4	2/4/2013	11	13
64	D-7	Base	5.5	2/4/2013	5	6.3

* Due to the initial laboratory result taken at 7 ft depth exceeding 800 ppm, additional soils in this area were removed down to 8 feet. A second sample was collected and analyzed using on-site XRF. The second sample was recorded at **18 ppm** and for safety reasons the excavated area was backfilled. ** Grid Area G-8 was excavated to 2 elevations due to demarcation wall of former Jewett facility. This resulted in the collection of 2 base samples. Contamination was observed at deeper depths within the old Jewett facility footprint. *** Sample 33 is a sidewall sample collected 24 inches below the sidewalk area. It is an adjacent area to what appears to be the former foundation wall of a former Jewett Site building. This area was observed with higher levels of lead concentration and remnants of clay pots utilized in the Jewett operation. An additional sample (Sample 34) was collected at a depth of 1 foot and showed a significant decrease in the levels of lead contamination. The samples collected were to document conditions at the site perimeter.

Air Monitoring and Sampling Activities

During intrusive site activities, RST conducted air monitoring for PM-10 dust along with air sampling for lead. Results from monitoring and confirmation sampling data received did not indicate any levels of concern during this reporting period. Monitoring and sampling activities are not conducted during non-intrusive activities or during periods of precipitation.

Waste Tracking

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
Non-hazardous wasteLead contaminated soil 12/14/2012 –	Soil	2,320 tons	Non-Haz: 001-097	None	ACUA LF

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
01/28/2013					
RCRA Hazardous Waste (D008)Lead Contaminated Soil01/08/2013 – 02/08/2013	Soil	7,980 tons	Haz 001-309	Clean Earth of NJ - Stabilization	GROWS LFAPEX LFNiagara LF

2.2 Planning Section

The following actions are currently planned to occur during this removal action;

- Continue with excavation and off-site treatment / disposal of lead contaminated soil
- Post excavation sampling and analysis to verify that the cleanup goal of 800 ppm is achieved
- Backfilling excavated areas with certified clean fill meeting NYS DEC unrestricted use standards.

2.3 Logistics Section

Nothing to report

2.4 Finance Section

With the increased disposal activities, additional funds were requested and provided. On 1/23/2013, EPA Applied $210,000 of contingency funds to the ERRS Task Order for site work. The contingency funding, approved under the initial Action Memorandum, was applied to cover on-going site costs and soil disposal. EPA also applied an additional $19,000 from contingency funding to the RST Contract.

An Action Memorandum requesting an increase in funding for removal activities was signed on 1/24/2013. The requested increase amount was $618,000. From that increase amount EPA applied $490,000 on 1/25/2013 to the ERRS Task Order to cover the cost of disposal activities. With the approval of the Action Memorandum requesting an increase in funding, the total removal project ceiling has changed from $1,374,000 to $1,992,000.

On 2/4/2013, EPA applied an additional $10,000 to the RST TDD. That funding was taken from the 1/24/2013 approved Action Memorandum.

On 2/6/2013, EPA requested an additional $103,000 of contingency funding from the 1/24/2013 Action Memorandum. This requested increase was applied to the ERRS Task Order on 2/8/2013.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$1,912,000.00	$1,735,719.00	$176,281.00	9.22%
RST Contractor	$65,000.00	$54,000.00	$11,000.00	16.92%
Intramural Costs				
Total Site Costs	$1,977,000.00	$1,789,719.00	$187,281.00	9.47%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to

any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

Not Applicable

3. Participating Entities

EPA is conducting this removal action under its CERCLA authority. EPA has and will continue to coordinate actions with many state and local organizations.

4. Personnel On Site

Agency / Organization	On-Site
EPA OSC	1
EPA ERRS Contractor	4
EPA RST Contractor	1

5. Definition of Terms

ACUA LF - Atlantic County Utility Authority Landfill, Egg Harbor Twp, NJ
CAMP – Community Air Monitoring Plan
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
EPA – U.S. Environmental Protection Agency
ERRS – Emergency and Rapid Response Service Contractor
mg/kg – milligrams per kilogram (also equivalent to parts per million, ppm)
mg/m3 – milligrams per cubic meter
NCP – National Contingency Plan, 40 CFR Part 300
NYC DOH – New York City Department of Health
NYC DOT – New York City Department of Transportation
NYS DEC – New York State Department of Environmental Conservation
ppm – parts per million
RAWP – Removal Action Work Plan
RST – Removal Support Team Contractor
TWA – Time Weighted Average

6. Additional sources of information

For additional information related to previous EPA activities, investigations, and reports related to the Jewett White Lead Site, please visit the following website: www.epaosc.org/jewettwhitelead

7. Situational Reference Materials

No information available at this time.